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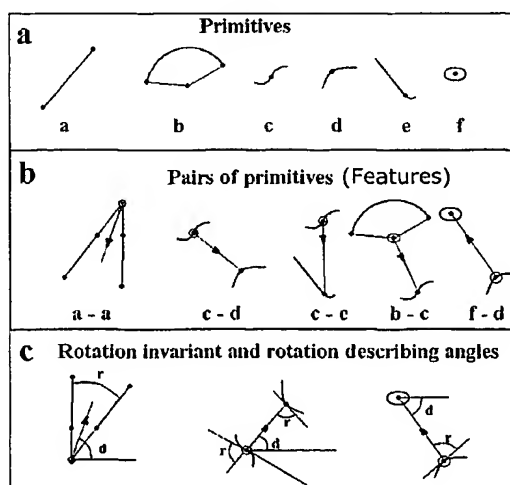
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(54) Title: COMPUTER-VISION SYSTEM FOR CLASSIFICATION AND SPATIAL LOCALIZATION OF BOUNDED 3D-OBJECTS



(57) Abstract: The invention relates to a system and method for recognition, classification and spatial localisation of bounded 3D-objects. In particular it relates to a computerised method for recognition, classification and localization of objects. The method comprises generation of a training database based on a large number of training views recorded by a camera or constructed using a CAD representation of an object. Characteristic curves are derived from the training views, and primitives of the curves are detected. Intrinsic and extrinsic descriptors of features are stored in the database together with data about the object class and pose of the view. Finally the recognition takes place in two stages: First the intrinsic descriptors of the recognition view are compared with those of the database. Second, among the best matching features it is explored which features agree mutually in the sense that they suggest the same object class at the same pose.